



Los Angeles County Medicines & Sharps Disposal Consumer Survey Results



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Summary

The Medicines and Sharps Disposal survey was conducted by the Los Angeles County Pharmaceutical Working Group. The survey used convenience samples of residents of LA County who were 18 years or older in three settings:

- Pharmacies in 16 Ralphs stores;
- LA County Department of Health Services (DHS) pharmacies located in two Comprehensive Health Centers; and
- Online using SurveyMonkey®.

The survey was available in English and Spanish and was self-administered from December 2015 to January 2016. The survey was completed by a total of 1,062 people (342 Ralphs, 126 DHS and 594 online).



More than half of respondents (59%) said they have medicines in their homes that are out of date or are no longer needed and 45% of these people said they did not know what to do with these medicines.

When asked what they usually do with medicines that are out of date or no longer needed, 753 people indicated at least one way they usually dispose of medicines. Of these 753 people, 69% use the trash or drain as their only method of medication disposal.

Nearly three-quarters of participants (74%) reported believing that putting medicine down the toilet or sink is harmful for the environment, 9% reported believing that it is not harmful and 17% didn't know. Over one-half (54%) believed that putting medicines in the trash was harmful for the environment, 15% reported believing that it is not harmful and 31% didn't know.

Overall, 242 (24%) of respondents reported they, or someone in their household used medical sharps - of these, 56% said they always place their used sharps in an approved sharps container and 16% said they sometimes do. There were 196 people who indicated at least one way that they, or their family member, dispose of sharps. Overall 87 people (44%) reported disposing of sharps in the trash and/or drain (85 selected trash and 2 selected drain), but 13 of these people also selected a legal means of disposal. Overall, of the 196 people who reported disposing of sharps, 38% use the trash or drain as their only method of disposal.

All participants were asked to select one option they would prefer to use in the future to dispose of sharps and medicines free of charge: two-thirds (69%) chose a drop-off bin in a pharmacy; 15% chose mail-back envelopes; 8% chose drop-off boxes at clinics; and 7% chose drop-off boxes at sheriff or police stations.

All participants were asked what best described their response to the following statement, "One of the ways that has been suggested for people to dispose of unwanted medicines and sharps is to place them in drop-off bins in pharmacies". The vast majority of participants selected "this is a good approach" (87%) while 7% selected "undecided" and 6% selected "I have concerns". More people were undecided (24%) or had concerns (11%) about this scenario if the pharmacies are located in stores that sell fresh food.

Finally, in the general comments section, the majority of commenters expressed support for safe, accessible, and convenient options for disposal of medicines and sharps.

Medicines & Sharps Disposal - Consumer Survey

Purpose

The Medicines and Sharps Disposal survey was conducted by the Los Angeles County Pharmaceutical Working Group to find out how members of the public in LA County currently dispose of drugs and sharps, their beliefs on the possible environmental impact of drug disposal, and their thoughts on potential future options for drug and sharps disposal.

Methods

Convenience samples of residents of LA County who were 18 years or older were invited to complete the survey in three settings:

- Ralphps pharmacies in LA County (16 pharmacies)
- DHS pharmacies (2 pharmacies at H. Claude Hudson and Hubert H. Humphrey Comprehensive Health Centers)
- Online, via SurveyMonkey®.

The survey was available in English and Spanish. Paper surveys were self-administered in the DHS pharmacies from 12/02/15 to 12/23/15 and in Ralphps from to 12/11/15 to 01/04/16. The online survey was posted from 12/7/15 to 1/22/16. The survey was voluntary, anonymous, and confidential. Any question could be skipped and participants could stop the survey at any time. Each participant could only complete the online survey once. The survey was approved by the LA County Public Health and Health Services Institutional Review Board.

The online survey was posted on the LA County Extended Producer Responsibility Pharmaceutical (EPR) and Department of Public Works websites and was promoted via social media by email and flyers. It was sent to Department of Public Health (Public Health) partners, EPR stakeholders (who represent the public), parent groups, all Public Health staff, people attending household hazardous waste drop-off events, and DHS patients receiving medicines by mail. All persons receiving the survey link were encouraged to share the link broadly with adult residents of LA County.

The study was conducted by the Health Care Consumer Protection Program, Department of Public Health on behalf of the LA County Pharmaceutical Working Group (EPR@LACOUNTY.GOV).

Results

The following figures show the responses for each survey question overall. The tables show responses for each question by setting and overall. Percentages are calculated using the number of participants responding to each question as the denominator unless otherwise noted. The overall non-response rate for each non-demographic question varied from 1% to 6%. Comments and details of 'other' responses are summarized and/or paraphrased.

Survey Sample

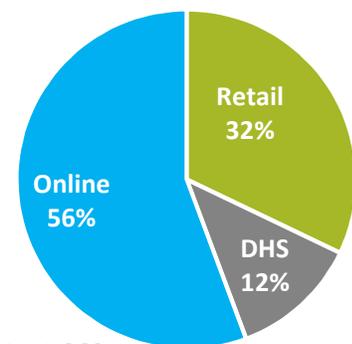


1,062 People Surveyed

Sixty-two people (6%) completed the Spanish language version.

The demographics of participants in the individual settings are shown at the end of this report.

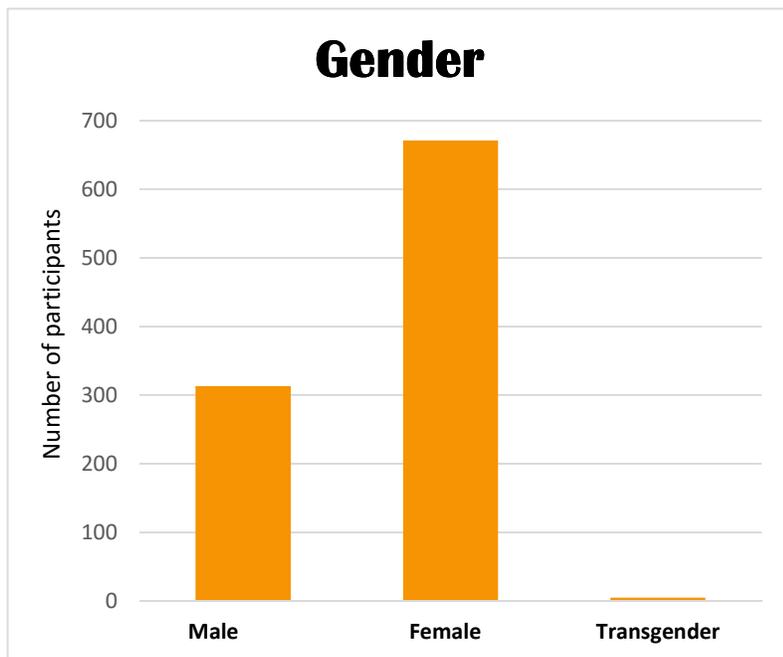
Participants by Setting



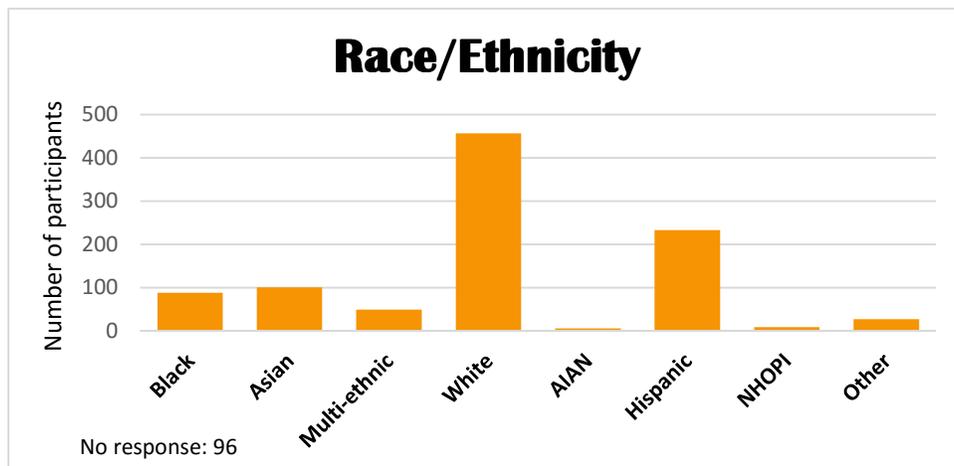
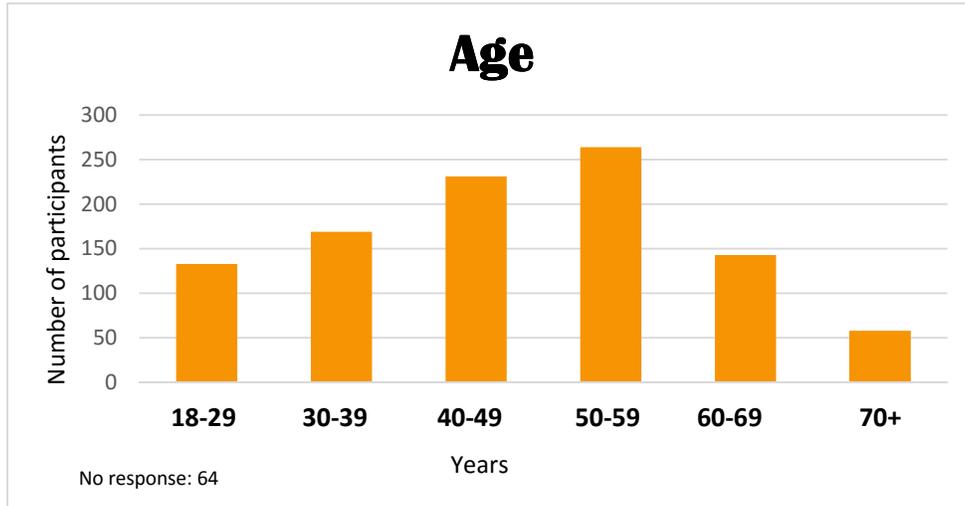
N=1,062

Participants by Survey Language

	English	Spanish	Overall
Retail	337	5	342
DHS	77	49	126
Online	586	8	594
Total	1,000	62	1,062



No response: 73



NHOPI - Native Hawaiian or other Pacific Islander

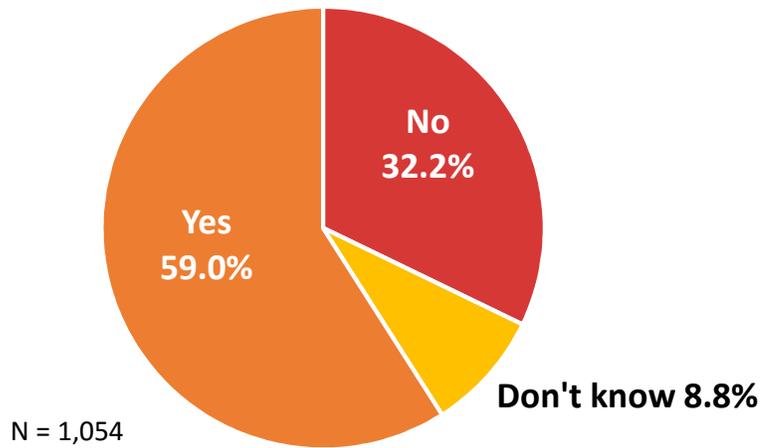
AIAN - American Indian or Alaskan Native

Current Practice - Medicines in the Home

59% Of people reported having medicines in their home that are out of date or that they no longer need.

Q1. Are there any medicines in your home that are out of date, or are no longer needed?

(By 'medicines' we mean prescription and over-the-counter drugs, including pills, patches and liquids. Please include medicines for you, your family members and your pets)

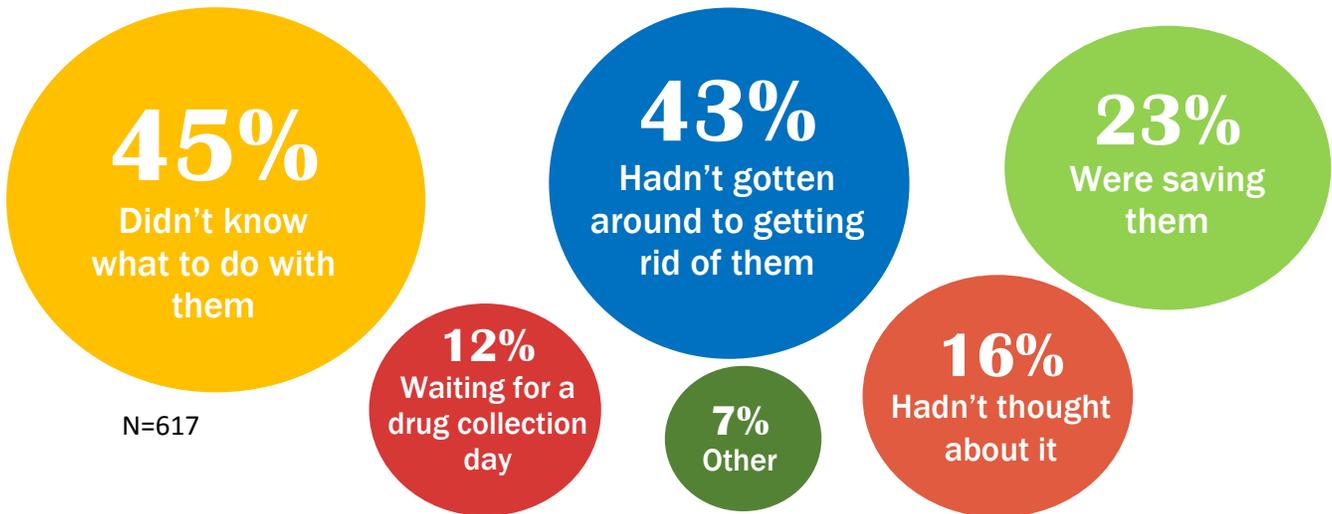


Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
Yes	131	38.6%	41	33.9%	450	75.8%	622	59.0%
No	179	52.8%	62	51.2%	98	16.5%	339	32.2%
Don't know	29	8.6%	18	14.9%	46	7.7%	93	8.8%
Total	339	100%	121	100%	594	100%	1,054	100%
No response	3		5		0		8	

Current Practice – Reason for Unwanted Medicines in the Home

Of the respondents who said they had medicines in their home that are out of date or that they no longer need:



Note: Multiple responses were allowed for this question so responses cannot be added together and percentages total over 100.

Several respondents selecting 'other' expressed the need for better, more convenient options for disposing of unwanted medicines. Eleven respondents said they are "waiting" for disposal days or opportunities to dispose of these items and several said that regular collection days are too rare or unavailable locally. Five respondents said that bins at the Sherriff's Department are usually full or overflowing. Two seniors mentioned difficulty getting to drug disposal sites. Four people tried to take medicines to their providers or pharmacies. Five people keep expired medications because they still work well and one keeps them to remember the name of a medication. Two people still had medication belonging to a deceased relative.

Q1a. If yes, [there any medicines in your home that are out of date, or are no longer needed] why are out of date or unwanted medicines still in your home? (select all that apply)

	Retail N=129		DHS N=39		Online N=449		Overall N=617	
	n	%	n	%	n	%	n	%
Saving them in case I, or a household member, need them again	34	26.4%	5	12.8%	100	22.3%	139	22.5%
Waiting for a drug collection day	7	5.4%	5	12.8%	60	13.4%	72	11.7%
Don't know what to do with them	49	38.0%	20	51.3%	210	46.8%	279	45.2%
Haven't thought about it	27	20.9%	15	38.5%	55	12.2%	97	15.7%
Haven't gotten around to getting rid of them	45	34.9%	9	23.1%	211	47.0%	265	42.9%
Other	6	4.7%	5	12.8%	34	7.6%	45	7.3%
No response	2		2		1		5	

Percentage does not sum to 100 and n will not add up to total as multiple responses allowed.

Current Methods to Dispose of Medicines

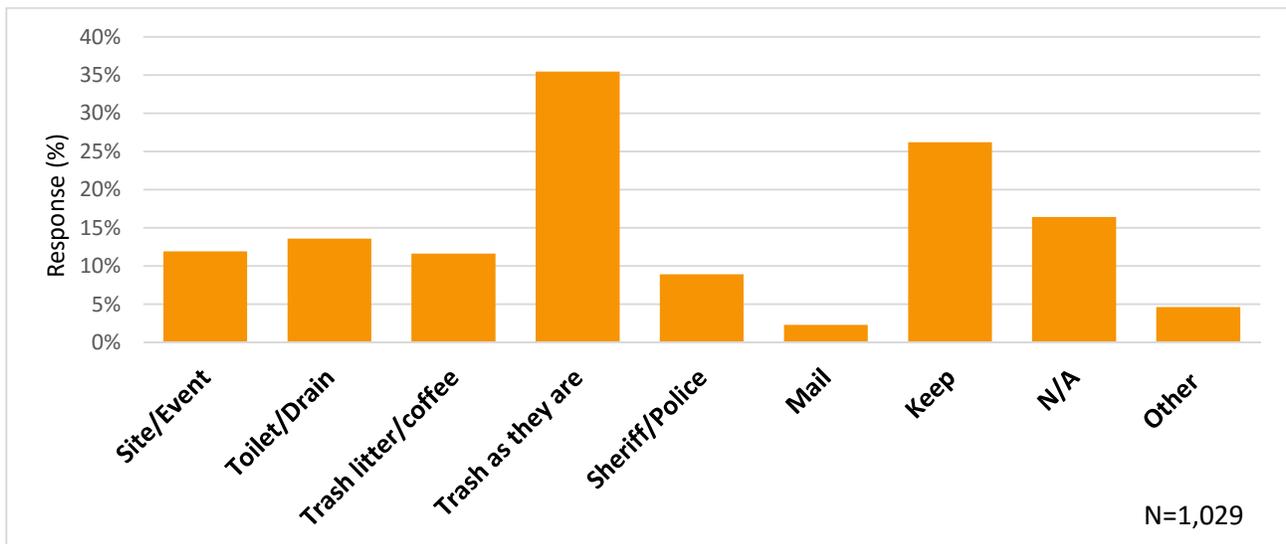
In the survey, 753 people indicated at least one way that they usually disposed of medicines. The remaining survey participants selected “keep at home” only, and/or “I don’t usually have any leftover medicine” only, and/or “other” (without describing a method of disposal) or they did not respond. Overall 570 people (76%) reported disposing of medicine in the trash and/or drain (430 selected trash, 94 selected drain, and 46 selected both), but 48 of these people also selected other methods of disposal that keep medicines out of landfill and water supplies (i.e. household hazardous waste/collection event, Sheriff’s station, or mail back).

In summary, of the 753 people who reported disposing of their medicines:

69% Use the trash or drain as their only method of medication disposal.

Several respondents selecting “other” described ways that they prepare medicines before throwing them in the trash such as “sealing” in plastic or metal containers (5 people) or mixing with water or dish soap (4). Four people remove labels on pill containers due to concern about their personal information. Sixteen people return unused medications to providers - pharmacists, physicians, veterinarians or hospitals. Two people donate unused medications to local agencies and one person sells them. Two people dispose of their medications in the ground/dirt.

Q2. What do you usually do with medicines that are out of date or that you no longer need? (select all that apply)



Note: participants were allowed to select multiple responses to this question, because they may use different methods at different times or for different types of medication, therefore these responses cannot be added together, and percentages total over 100.

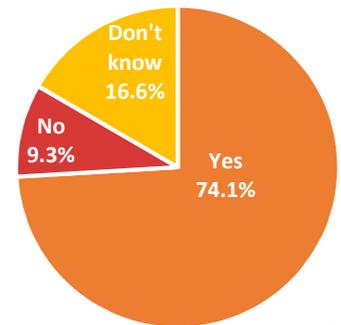
Responses by survey setting:

	Retail N=339		DHS N=115		Online N=575		Total N=1,029	
	n	%	n	%	n	%	n	%
Take to a hazardous waste disposal site or collection event	25	7.4%	8	7.0%	90	15.7%	123	12.0%
Flush down the toilet or put down drain	43	12.7%	18	15.7%	79	13.7%	140	13.6%
Throw away in the trash after mixing with wet coffee grounds, kitty litter, or similar	45	13.3%	6	5.2%	69	12.0%	120	11.7%
Throw away in the trash as they are	100	29.5%	52	45.2%	213	37.0%	365	35.5%
Take to a drop-off bin outside a sheriff's or police station	26	7.7%	1	0.9%	65	11.3%	92	8.9%
Mail in a pre-paid envelope for disposal	13	3.8%	1	0.9%	10	1.7%	24	2.3%
Keep at home	75	22.1%	29	25.2%	166	28.9%	270	26.2%
I don't usually have any left-over medicine	77	22.7%	27	23.5%	65	11.3%	169	16.4%
Other	12	3.5%	5	4.3%	31	5.4%	48	4.7%
No response	25	7.4%	8	7.0%	90	15.7%	123	12.0%

Percentage does not sum to 100 and n will not add up to total as multiple responses allowed.

Environmental Concerns of Disposing of Medicines

74% Believe putting medicine down the toilet or sink is harmful for the environment



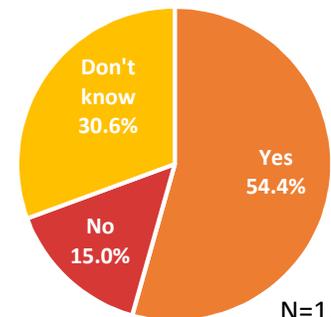
N=1,029

Q3. Do you believe that putting medicine down the toilet or sink is harmful for the environment?

Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
Yes	229	67.6%	62	53.0%	471	82.2%	762	74.1%
No	44	13.0%	25	21.4%	27	4.7%	96	9.3%
Don't Know	66	19.5%	30	25.6%	75	13.1%	171	16.6%
Total	339	100%	117	100%	573	100%	1,029	100%
No response	3		9		21		33	

54% Believe that putting medicines in the trash was harmful



N=1,032

Q4. Do you believe that putting medicine in the trash is harmful for the environment?

Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
Yes	177	52.2%	47	39.8%	337	58.6%	561	54.4%
No	71	20.9%	22	18.6%	62	10.8%	155	15.0%
Don't Know	91	26.8%	49	41.5%	176	30.6%	316	30.6%
Total	339	100%	118	100%	575	100%	1,032	100%
No response	3		8		19		30	

Current Practice - Sharps

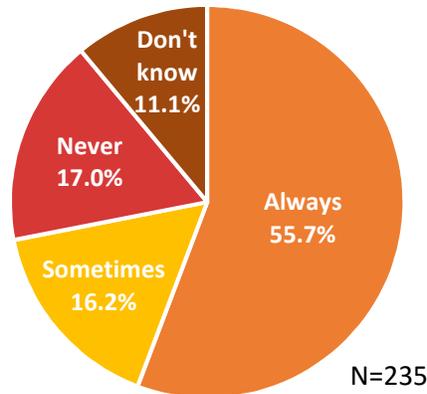
Among all survey respondents, 24% reported that they, or someone in their household, used medical sharps. Of these, 56% said they always used an approved sharps container, 16% sometimes used a container, and 17% never used one. Eleven percent reported not knowing how the household sharps were disposed.

Q5. Do you, or anyone in your household, use medical sharps (e.g. syringes, needles, lancets to give medicine or test blood sugar)?

Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
Yes	60	17.8%	24	21.8%	158	27.5%	242	23.7%
No	271	80.2%	83	75.5%	412	71.8%	766	75.0%
Don't Know	7	2.1%	3	2.7%	4	0.7%	14	1.4%
Total	338	100%	110	78%	574	100%	1022	100%
No response	4		16		20		40	

Q5a - If yes, how often are the used sharps placed in an approved sharps container?



Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
Always	30	52.6%	13	59.1%	88	56.4%	131	55.7%
Sometimes	8	14.0%	1	4.5%	29	18.6%	38	16.2%
Never	10	17.5%	8	36.4%	22	14.1%	40	17.0%
Don't Know	9	15.8%	0	0.0%	17	10.9%	26	11.1%
Total	57	100%	22	100%	156	100%	235	100%
No response	3		2		2		7	

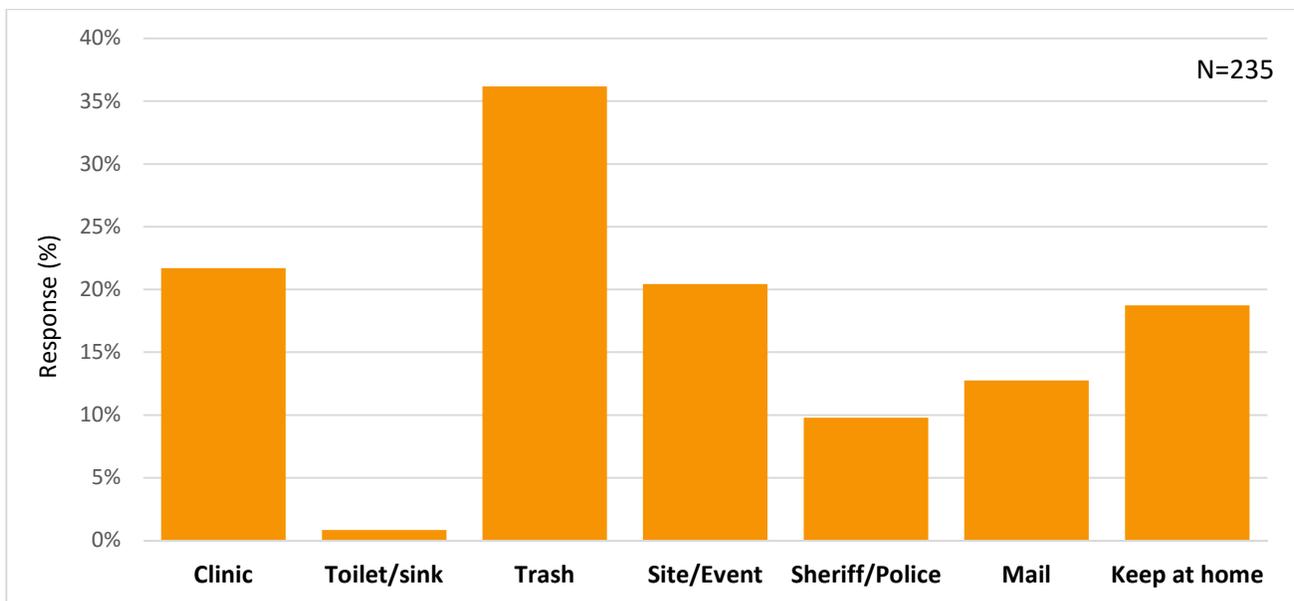
Current Practice - Sharps

In the survey, there were 196 people who indicated at least one way that they, or their family member, dispose of sharps. The remainder selected “keep at home” only, and/or “other” (without describing a method of disposal), or they did not respond. Overall 87 people (44%) reported disposing of sharps in the trash and/or drain (85 selected trash and 2 selected drain), but 13 of these people also selected a legal means of disposal (i.e. household hazardous waste/collection event, clinic, Sheriff’s station, or mail back program).

In summary, of the 196 people who reported disposing of sharps:

38% Use the trash or drain as their only method of medication disposal.

Q5b. What are all the ways that you, or a family member, dispose of the used sharps? (select all that apply)



Note: because participants were allowed to select multiple responses to this question, these responses cannot be added together and percentages total over 100.

Several respondents selecting “other” described ways that they prepare sharps before throwing them in the trash - nine put them in containers, like coffee or soda cans, sometimes after breaking off the needle. Three use syringe exchange programs, and seven take sharps to providers - pharmacists, physicians, or hospitals. One person reuses their syringes and lancets.

Responses by survey setting:

	Retail N=58		DHS N=23		Online N=154		Overall N=235	
	n	%	n	%	n	%	n	%
Take to a clinic	5	8.6%	4	17.4%	42	27.3%	51	21.7%
Put down the toilet or sink	0	0.0%	2	8.7%	0	0.0%	2	0.9%
Throw in the trash	21	36.2%	9	39.1%	43	27.9%	73	31.1%
Take to a hazardous waste disposal site or collection event	12	20.7%	4	17.4%	32	20.8%	48	20.4%
Put in a drop-off bin outside a sheriff's or police station	3	5.2%	0	0.0%	20	13.0%	23	9.8%
Send to a mail-back program	14	24.1%	0	0.0%	16	10.4%	30	12.8%
Keep at home	7	12.1%	0	0.0%	37	24.0%	44	18.7%
Other	8	13.8%	5	21.7%	26	16.9%	39	16.6%
No response	2		1		4		7	

Percentage does not sum to 100 and n will not add up to total as multiple responses allowed.

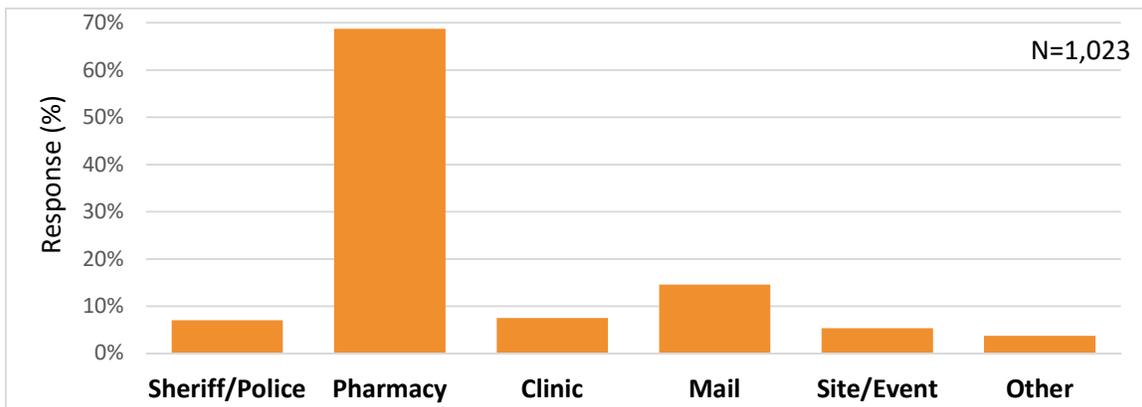
Future Preferences for Disposing of Medicines and Sharps

69% Chose a drop-off bin in a pharmacy when asked to select how they would prefer to dispose of sharps and medicines.

This was followed by mail-back option (15%), drop of at a clinic (8%) and drop-off boxes at sheriff or police stations (7%). Note: some respondents completing paper surveys gave multiple responses and all responses were included. As a result, the responses in the DHS, retail samples, and overall do not total 100%.

The majority of respondents providing comments in the “other” section mentioned convenience, including reliable and consistent services, evening access to disposal options, and the need for confidentiality to protect personal health information and identity. Respondents offered suggestions for additional disposal options for medicines and/or sharps including collecting them in the same way as trash and recyclables from homes, and pick-up services for seniors and people with disabilities. Respondents also suggested drop-off bins in locations such as medical and veterinary providers’ offices, local schools, fire stations, syringe exchange programs, grocery and big box stores, work places, community centers, and local non-profits.

Q6. If all the options listed below were available, free of charge, which ONE option would you prefer to use to dispose of your medicines and/or sharps?



Responses by survey setting:

	Retail N=329		DHS N=117		Online N=577		Total N=1023	
	n	%	n	%	n	%	n	%
Drop-off bin outside sheriff's or police station	34	10.3%	12	10.3%	26	4.5%	72	7.0%
Drop-off bin at a local pharmacy	230	69.9%	78	66.7%	395	68.5%	703	68.7%
Drop-off bin at a clinic	24	7.3%	39	33.3%	14	2.4%	77	7.5%
Pre-paid mail-back envelope or box	46	14.0%	11	9.4%	92	15.9%	149	14.6%
Hazardous waste disposal site or collection event	24	7.3%	10	8.5%	21	3.6%	55	5.4%
Other	6	1.8%	5	4.3%	27	4.7%	38	3.7%
No response	13		9		17		39	

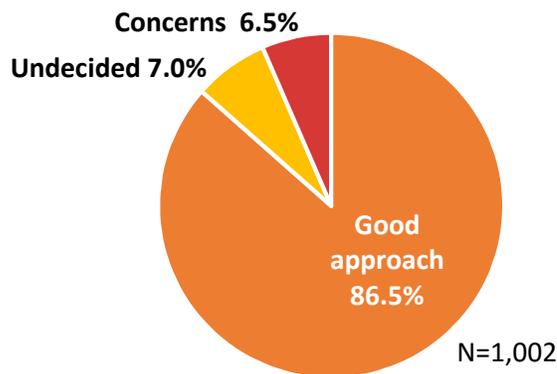
Percentage does not sum to 100 and n will not add up to total due to missing values and multiple responses on some paper

Opinion of Drop-off Bins in Pharmacies

87% Said pharmacy drop-off bins were a “Good Approach.”

When asked if they thought that drop-off bins in pharmacies were a good approach, 7% of respondents selected “undecided,” and 6.5% (65 people) selected ‘I have concerns about that approach’. Of the 37 people who described their concerns, the majority made comments about safety and security. Twenty-two people expressed concern about the possibility of injury, theft, tampering or vandalism, and the chance that the bins could attract illicit drug users and addicts. Respondents also mentioned the need for close monitoring of, and control over the bins and one person said items might be left in the store when the pharmacy is closed. Six people expressed concerns over the handling of unwanted medications, used sharps, and the disposal bins by pharmacists and pharmacy staff. Two people were concerned about cleanliness and risk of contamination. Six mentioned the impact of disposal at pharmacies on costs to the taxpayers and/or consumers.

Q7a. One of the ways that has been suggested for people to dispose of unwanted medicines and sharps is to place them in drop-off bins in pharmacies. Which of the following best describes your response to this suggestion?



Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
I think that is a good approach	279	84.0%	106	93.0%	482	86.8%	867	86.5%
I am undecided on whether that would be a good approach	37	11.1%	5	4.4%	28	5.0%	70	7.0%
I have concerns about that approach	16	4.8%	4	3.5%	45	8.1%	65	6.5%
Total	332	100%	115	101%	555	100%	1,002	100%
No response	10		12		39		61	

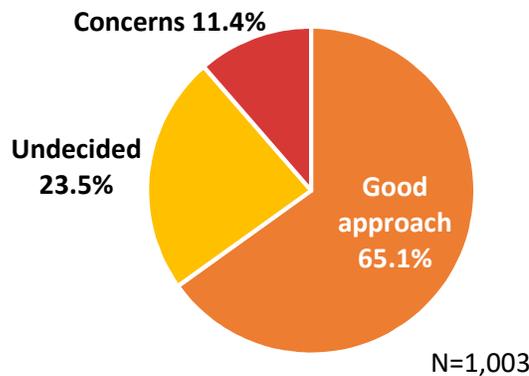
**Percentage for DHS does not sum to 100 as one person gave 2 responses*

Opinion of Drop-off Bins in Pharmacies that Sell Fresh Food

65% Said drop-off bins at pharmacies located in stores that sell fresh food is a “Good Approach” while 24% were undecided.

When asked if they thought that drop-off bins in pharmacies that sell fresh food were a good approach, 111 people (11.4%) selected ‘I have concerns about that approach. Of the 47 people who described their concerns, 26 were concerned about sanitation and contamination risk posed by these disposal bins. Fourteen additional comments were left regarding the safety and security of bins in pharmacies. Three people expressed concerns about criminal behavior, ‘crazy people’ deliberately injecting food at pharmacies. Four people expressed concerns over the handling of unwanted medications, used sharps, and the disposal bins by pharmacists and pharmacy staff. One person suggested a drop-off chute outside the pharmacy.

Q7b. If the pharmacies are located in stores that sell fresh food, which of the following best describes your response to this suggestion?



Responses by survey setting:

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
I think that is a good approach	237	71.8%	76	66.7%	340	60.9%	653	65.1%
I am undecided on whether that would be a good approach	71	21.5%	28	24.6%	137	24.6%	236	23.5%
I have concerns about that approach	22	6.7%	11	9.6%	81	14.5%	114	11.4%
Total	330	100%	115	101%	558	100%	1003	100%
No response	12		12		36		60	

Percentage for DHS does not sum to 100 as one person gave 2 responses

General Comments

Respondents were given an opportunity to leave comments at the end of the survey, and 464 did so. The overwhelming majority of commenters expressed support for safe, accessible, and convenient options for disposal of medicines and sharps. Many also shared specific ideas for new approaches, as well as concerns about public safety and security. What follows is a summary of these comments.

Twenty-seven commenters supported drop-off bins at pharmacies, noting that this is a great or good idea and a safe and convenient option. One commenter opposed bins in pharmacies because of perceived risk of contamination from used sharps. A mail-back option was favored by six commenters, and one preferred a home pick-up service. One person opposed mail-back of unwanted medications and used sharps. One commenter suggested drop-off bins at doctors' offices would be most convenient.

Twelve people commented on drop-off bins at LA County Sheriff's Department sites. Two people appreciated the service and accessibility of these Sheriff's Department bins, and three people suggested expanding the number of these drop-off sites or bins. Seven people said the bins are often full or overflowing.

Fifteen commenters were expressly concerned about the environmental impact and harm of medications and sharps getting into the water supply and soil, while two people said they believe flushing or throwing away medicines is not harmful to environment. Six commenters said throwing away medicines in the trash is acceptable, but did not state why. Two people were concerned about sharps getting into the environment, but not medicines. One person suggested the need for recycling options for disposal. One commenter mentioned a need for disposal of sprays and inhalers.

Fifteen commenters called for public education around medicines and sharps disposal, eight of whom made specific suggestions of ways to reach the broader public with messages, such as television and radio. One commenter cited the importance of public education in multiple languages for LA County. Another commenter called for public education around disposal options for medicine bottles.

Five commenters made suggestions about how safe options for medicines and sharps disposal should be funded, including by government programs and pharmaceutical corporations.

Ten commenters urged the protection of confidentiality and security of personal information with respect to disposal options, and two commenters worried about whether there would be penalties or legal risks for disposing medicines or sharps.

Sixty-one commenters primarily emphasized the need for convenient and accessible medicines and sharps disposal options. These commenters called for more options in more places, including home pick-up service for seniors and disabled, and curbside waste disposal pick-up.

Fifty-six commenters left general comments that are strongly in favor of the drug and sharps disposal issue being addressed.

Survey Respondent Demographics by Site and Overall



Age

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
18-29	65	19.0%	14	11.1%	54	9.1%	133	12.5%
30-39	57	16.7%	19	15.1%	93	15.7%	169	15.9%
40-49	66	19.3%	30	23.8%	135	22.7%	231	21.8%
50-59	73	21.3%	33	26.2%	158	26.6%	264	24.9%
60-69	46	13.5%	16	12.7%	81	13.6%	143	13.5%
70+	24	7.0%	2	1.6%	32	5.4%	58	5.5%
No response	11	3.2%	12	9.5%	41	6.9%	64	6.0%
Total	342	100%	126	100%	594	100%	1,062	100%

Gender

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
Male	156	45.6%	37	29.4%	120	20.2%	313	29.5%
Female	170	49.7%	74	58.7%	427	71.9%	671	63.2%
Transgender	0	0.0%	1	0.8%	4	0.7%	5	0.5%
No response	16	4.7%	14	11.1%	43	7.2%	73	6.9%
Total	342	100%	126	100%	594	100%	1,062	100%

Race/Ethnicity

	Retail		DHS		Online		Overall	
	n	%	n	%	n	%	n	%
African American/Black	23	6.7%	32	25.4%	33	5.6%	88	8.3%
Asian	42	12.3%	7	5.6%	52	8.8%	101	9.5%
Mixed/Multi-ethnic	18	5.3%	0	0.0%	31	5.2%	49	4.6%
White/Non-Hispanic	166	48.5%	3	2.4%	288	48.5%	457	43.0%
American Indian/Alaskan Native	1	0.3%	0	0.0%	5	0.8%	6	0.6%
Hispanic/Latino	59	17.3%	66	52.4%	108	18.2%	233	21.9%
Native Hawaiian or Other	8	2.3%	0	0.0%	1	0.2%	9	0.8%
Other	0	0.0%	2	1.6%	25	4.2%	27	2.5%
No response	28	8.2%	17	13.5%	51	8.6%	96	9.0%
Total*	345	101%	127	101%	594	100%	1,066	100%

*Percentages for race/ethnicity do not sum to 100 as multiple responses given by 4 respondents